January 16, 1996

MEMORANDUM

TO: Brian R. Monson, Chief,
Operating Permits Bureau
Permits and Enforcement

FROM: Almer B. Casile, Air Quality Engineer
Operating Permits Bureau

THROUGH: Susan J. Richards, Air Quality Permits Manager
Operating Permits Bureau

SUBJECT: Technical Analysis for Tier II Operating Permit #005-00004
Ash Grove Cement Company, Inkom

PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 (Rules for the Control of Air Pollution in Idaho) for issuing Operating Permits.

PROJECT DESCRIPTION

This project involves the modification of and response to public comment for Operating Permit (OP) #005-00004. For a listing of the modifications proposed and comments submitted by Ash Grove Cement (AGC), please refer to Appendix A.

FACILITY DESCRIPTION

The AGC plant has an annual production of approximately a 220,000 tons of clinker. The plant is situated along the bank of the Portneuf River, approximately eleven (11) miles south-east of Pocatello, Idaho. The plant produces clinker from raw materials and processes the clinker into cement.

For a listing of all transfer points, point sources, roads, storage piles, and their associated emissions, please refer to Appendix B.

SUMMARY OF EVENTS

On July 12, 1995, Almer Casile, Air Quality Engineer, met with Craig Southworth of AGC to review, and modify the emission inventory submitted with AGC's April 4, 1995 Tier II OP application. On July 21, 1995, DEQ received AGC's July 18, 1995, request to modify their Tier II OP. On August 7, 1995, DEQ called Barbara Beagles and Craig Southworth to verify that the July 18, 1995, letter did serve as AGC application to modify their Tier II OP, and to verify AGC's acceptance of the July 12, 1995, emission inventory. AGC responded on August 11, 1995, with a letter stating the company's conditional acceptance of the July 12, 1995, emission inventory.

On October 4, 1995, DEQ met with AGC discuss the terms of AGC's conditional approval of the July 12, 1995, emission inventory. DEQ stated it would not accept AGC's conditional approval because it noted inconsistencies within the emission inventory. DEQ and AGC agreed that DEQ would review and modify inconsistencies within the July 12, 1995, emission inventory and incorporate the July 18, 1995, requested modifications into the emission inventory. It was also agreed upon that the reviewed emission inventory would be sent to AGC for their approval. On October 16, 1995, the reviewed and modified emission inventory was sent to AGC for approval. On October 30, 1995, DEQ received AGC's approval of the modified emission inventory. A public comment period was then scheduled from December 4, 1995, to January 2, 1996. Comments were then received by AGC on December 18, 1995.

DISCUSSION

1. **Emission Calculations**

   All requested modifications per AGC's July 18, 1995, letter were incorporated into the emission inventory for the Tier II OP. These modifications were documented in the November 27, 1995, memorandum regarding the technical analysis for the modified Tier II OP #005-00004. A requested change to the Silica material throughput of emission point F19 submitted during the public comment period has also been incorporated into the emission inventory (see Appendix B). The requested change submitted during the public comment period has changed the hourly and annual allowable emission limits of Silica Receiving, Crushing, and Storage. The changes are as follows:

Source Description	PM		PM_{10}	
	lb/hr	ton/yr	lb/hr	ton/yr
Silica Receiving, Crushing, and Storage (Original)	9.08	1.99	4.04	0.89
Silica Receiving, Crushing, and Storage (After the Requested Change)	10.18	2.63	4.52	1.18

2. **Modeling**

All modeling has been documented in the SIP.

3. **Area Classification**

AGC is located in Inkom, which is located in the Power-Bannock Counties Nonattainmemt Area. This area is nonattainment for PM_{10} and attainment or unclassified for other criteria pollutants.

4. **Facility Classification**

The facility is a Portland cement plant (SIC #3241) and is a designated facility, as defined in IDAPA 16.01.01.006.25. The facility is a major facility, as defined in IDAPA 16.01.01.00654, because actual emissions of PM, NO_x, SO_2, and CO exceed 100 tons per year (T/yr). The facility is also subject to NSPS, 40 CFR 60 Subpart F.

5. **Regulatory Review**

This Tier II OP is subject to the following permitting regulations:

A. State

IDAPA 16.01.01.006	Definitions;
IDAPA 16.01.01.401	Tier II Operating Permit;
IDAPA 16.01.01.402	Application Procedures;
IDAPA 16.01.01.403	Permit Requirements;
IDAPA 16.01.01.404	Procedure for Issuing Permits;
IDAPA 16.01.01.405	Conditions for Tier II Operating Permit;
IDAPA 16.01.01.406	Obligation to Comply;
IDAPA 16.01.01.470	Permit Application Fees for Tier II Permits;
IDAPA 16.01.01.525	Registration and Registration Fees;
IDAPA 16.01.01.625	Visible Emissions Limitations;
IDAPA 16.01.01.650	General Rules for the Control of Fugitive Dust;

B. Federal

40 CFR 60 Subpart F	Standards of Performance for Portland Cement Plants

RECOMMENDATION

Based on the review the submitted information and modified emission inventory, the Bureau staff recommends that Ash Grove Cement Company, located in Inkom, Idaho, be issued a Tier II Operating Permit. Staff also recommends that the facility be notified in writing of the obligation to pay permit application fees, pursuant to IDAPA 16.01.01.470, for the Tier II Operating Permit.

BRM\SJR\ABC:jrj...\permit\ashgrove\asgf.TAM

Attachments

cc: G. Spinner, SEIRO
R. Elkins, SEIRO
COF
A. Cole, SEIRO
Source File

Appendix A

ASH GROVE CEMENT COMPANY

WESTERN REGION
230 CEMENT ROAD
INKOM, IDAHO 83245-1543
PHONE 208 / 775-3351
FAX 208 / 775-3509

December 15, 1995

Tony Wilson
Program Development Specialist
Division of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1253

RE: Public Comments concerning the Ash Grove Tier II Operating Permit

Dear Mr. Wilson:

Enclosed are the comments concerning the Revised Tier II Operating Permit issued on December 4, 1995.

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

If you need any additional information concerning any of these changes please do not hesitate to contact Barbara Beagles at (208) 775-3351 ext. 13.

Sincerely,

Don Killebrew

Don Killebrew
Plant Manager
Ash Grove Cement Company
Inkom, Idaho

Technical Analysis Section of the Public Comment Package

Facility Description

The Ash Grove Cement (AGC) plant has an annual production of approximately 220,000 tons of ~~cement~~.

To be replaced with (clinker).

Recommendation

Staff also recommends that the facility be notified in writing of the obligation to pay permit application fees for the modified operating permit.

On March 10, 1995 the State of Idaho DEQ requested that Ash Grove Cement compile a Tier II Operating Permit Application by April 4, 1995. The issuance of the Tier II Operating Permit was a condition of EPA's approval to defer PBNAA's automatic redesignation to a serious classification for PM_{10}. Ash Grove Cement cooperated with the DEQ on this effort to gain the extension and we subsequently submitted our permit application by the April 4, 1995 deadline fully knowing that the permit could be further negotiated with the IDEQ after its issuance due to the narrow time constraint imposed on both parties. Through this process of the Tier II Permit's issuance and Ash Grove's "Conditional Acceptance", we have been in constant negotiation with the state permit writers. We feel that this lengthy process of issuing the Tier II Permit was an on going and continuing "one" application process and that an additional fee for a "Modified Operating Permit" is not warranted.

Appendix B
Table 3, Page 1

Emission point F19 Belt B to Belt C is incorrect. It currently reads ***Silica at 4000 tons of annual throughput and Iron Ore at an annual throughput of 4000 tons.***

We are requesting this to be changed to Silica at 40,000 tons and Iron Ore to remain at 4,000 tons.

Proposed Permit Section of the Public Comment Package

Source: Quarried Raw Materials Receiving, Crushing, and Storage
Source: Iron Ore Receiving, Crushing, and Storage
Source: Silica Receiving, Crushing, and Storage
Source: Gypsum Receiving, Crushing, and Storage

A request for a universal change from ***"incline"*** belt to **inclined belt**.

Source: Silica Receiving, Crushing, and Storage
4.1 Process Rate

A request to change the spelling of ***ninty-six*** to **ninety-six.**

Source: Rotary Kilns
Operating Requirements
4.1 Fuel Usage
4.1.1 A request to change ***46 CFR 279*** to **40 CFR 279.**

Source: #1 and #2 Clinker Cooler and Clinker Handling System
1.2 Control Description
A request to change ..... ***Emission associated with all transfer points***.....to **Emissions**

Source: Cement Loadout
Source Description
1.2 Control Description
A request to change .....***truck loading tanks A/B and C/D*** .....**to A,B, and C/D**.

Source: Paved Roads
A request to change ***Page 35 of 46*** to **Page 42 of 46**

A request to omit Section 3. This section is a duplicate of section 3 for the Unpaved Roads section of the permit and does not apply to the paved roads in the facility.

A request to omit Section 5. This section is not applicable due to there not being any monitoring requirements for the paved roads.

We are also requesting that we receive documentation from the IDEQ that the inclusion of the manufacturers and model numbers of all of the process equipment used at the facility does not give the DEQ the right to hold Ash Grove Cement to use the same type of equipment when replacing machinery throughout the lifetime of this permit.

ASH GROVE CEMENT COMPANY

WESTERN REGION
230 CEMENT ROAD
INKOM, IDAHO 83245-1543
PHONE 208 / 775-3351
FAX 208 / 775-3509

July 18, 1995

Brian Monson
Bureau Chief,
Operating Permits Bureau
Division of Environmental Quality
1410 North Hilton
Boise, Idaho 83270

RE: Modification of our Tier II Operating Permit #005-00004

Dear Mr. Monson:

After meetings with Craig Southworth of Ash Grove and Almer Casile of DEQ on Wednesday July 12, 1995 it was determined that the following changes would be submitted as modifications to our existing permit# 005-00004.

The following include the modifications requested:

- *Section* Quarried Raw Material Receiving, Crushing, and Storage
  4.1 Change process rate of 142 tons to 200 tons per hour on a monthly average basis. Change 380,000 tons to 400,000 tons per year.
  Information has been submitted showing that in the past we have operated at this hourly throughput. In the emission inventory a throughput of 400,000 tons per year includes a 20,000 ton recycled amount from our stockpiled storage.

- *Section* Iron Ore Receiving, Crushing, and Storage
  4.1 Change process rate from 118 tons to 200 tons per hour on a monthly average basis. Information has been submitted showing that in the past we have operated at this hourly throughput.

- *Section* Gypsum Receiving, Crushing, and Storage
  4.1 Change process rate from 159 tons to 200 tons per hour on a monthly average basis. Information has been submitted showing that in the past we have operated at this hourly throughput.

- *Section* Raw Material Silo Withdrawal
  4.1 Change process rate from 53 tons to 60 tons per hour on a monthly average basis. Information has been submitted showing that in the past we have operated at this hourly throughput.

- *Section* Clinker Reclaim
  4.1 Change process rate to read "clinker reclaim will not exceed the process rates of finish grinding and associated handling". Information has been submitted showing that in the past we have operated at this hourly throughput.

- *Section* Finish Grinding and Associated Handling
  4.1.1 Reword to "Each of the three finish mills shall process no more than twenty-six tons of material per hour on a monthly average basis and 175,200 tons of total cement annually." Information has been submitted showing that in the past we have operated at this hourly throughput.

- *Section* Cement Loadout
  4.1 .1 Change from 75 tons of cement per hour to 200 tons of cement per hour.
  4.1.2 Change from 75 tons of cement per hour to 225 tons of cement per hour.
  4.1.3 Should read "Packaging of cement into bags shall not exceed 75 tons of cement per hour." Although we have no records of hourly throughput rates for cement loadout, it is our best judgement that we have operated at or near these levels in the past.

- *Section* Baghouse Specification
  4.2 Change from Each baghouse shall be operated and maintained in accordance with the manufacturers recommendations. All manufacturer's specifications and operating instructions for each baghouse shall be kept on site as long as each baghouse is operated and shall be made available to DEQ representatives upon request.
  Change to- *Each baghouse shall be operated and maintained in accordance with Ash Grove's Dust Collector Maintenance Plan. This plan will be submitted along with the Tier I Operating Permit Application but it will be made available to DEQ representatives upon request.*

- Additional minor errors were submitted to Almer Casile on Wednesday July 12. Those changes will be left to Almer's discretion for incorporation into the permit along with our requested modifications.

Based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

If there are any questions concerning these requests for a permit modification please do not hesitate to contact Barbara Beagles at (208) 775-3351 ext. 13.

Sincerely,

Henrik Voldbaek
Plant Manager
Ash Grove Cement Company
Inkom, Idaho

Appendix B

TABLE 3

PROPOSED

PROCESS FUGITIVE EMISSIONS FOR ASH GROVE CEMENT

	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	PROCESS		FUG	NAME FROM	NAME TO	HRS	DAYS				ANNUAL	EMISSION	FACTORS	REF	PM10	MOIST.	CAPT.	BUILD.	EMISSIONS		TSP	PM-10
2			CODE			/DAY	/YR	HRS/YR	MATERIAL	THR-PUT	THROUGHPUT	TSP	PM10		FRAC	CONTL.	CONTL.	CONTL.	PM10	TSP	EMISS	EMISS
3										TON/HR	TON/YR	LB/TON	LB/TON		%	FACT.	FACT.	FACT 3	LB/HR	LB/HR	T/YR	T/YR
4		F	1	DRILING		24	0	320	LIMESTONE		400000	0.0001	0.0000		5%	0%	0%	0%			0.02	0.00
5		F	2	BLASTING		24	0	0	LIMESTONE		400000	0.1800	0.0080	Tb 8.19.2-2	5%	0%	0%	0%			32.00	1.80
6		F	3	DOZING																		
7					D9L			191	LIMESTONE			2.8400	1.8500	Tb 8.24-2	83%						0.26	0.16
8					D10N			1985	LIMESTONE			2.8400	1.8500		83%						2.58	1.61
9																						
10	MATERIAL	F	4	LOADER	FEEDER	8	250	2000	LIMESTONE	200	400000	0.0350	0.0018	AP42	5%	0%	0%	90%	0.07	1.40	1.40	0.07
11	RECEIVING					3	35	105	GYPSUM	200	21000	0.0350	0.0018	Tb 8.19.2-1	5%	0%	0%	90%	0.07	1.40	0.07	0.00
12	AND CRUSHING					2	10	20	IRON ORE	200	4000	0.0350	0.0018		5%	0%	0%	90%	0.07	1.40	0.01	0.00
13						4	104	416	SILICA	108	45000	0.0350	0.0018		5%	0%	0%	90%	0.04	0.76	0.16	0.01
14		F	5	FEEDER	JAW CRUSHER	8	250	2000	LIMESTONE	200	400000	0.0350	0.0162		46%	50%	0%	90%	0.76	0.35	0.35	0.16
15						3	35	105	GYPSUM	200	21000	0.0350	0.0162		46%	50%	0%	90%	0.16	0.35	0.02	0.01
16						2	10	20	IRON ORE	200	4000	0.0350	0.0162		46%	50%	0%	90%	0.16	0.35	0.00	0.00
17						4	104	416	SILICA	108	45000	0.0350	0.0162		46%	50%	0%	90%	0.09	0.19	0.04	0.02
18		F	6	JAW CRUSHER	#1 INCLINE BELT	8	250	2000	LIMESTONE	200	400000	0.0350	0.0162		46%	50%	0%	90%	0.76	0.35	0.35	0.16
19						3	35	105	GYPSUM	200	21000	0.0350	0.0162		46%	50%	0%	90%	0.16	0.35	0.02	0.01
20						2	10	20	IRON ORE	200	4000	0.0350	0.0162		46%	50%	0%	90%	0.16	0.35	0.00	0.00
21						4	104	416	SILICA	108	45000	0.0350	0.0162		46%	50%	0%	90%	0.09	0.19	0.04	0.02
22		F	7	#1 INCLINE BELT	#2 INCLINE BELT	8	250	2000	LIMESTONE	250	500000	0.0350	0.0162		46%	50%	0%	90%	0.81	1.75	1.75	0.81
23						3	35	105	GYPSUM	300	31500	0.0350	0.0162		46%	50%	0%	90%	0.97	2.10	0.11	0.05
24						2	10	20	IRON ORE	200	4000	0.0350	0.0162		46%	50%	0%	90%	0.65	1.40	0.01	0.01
25						4	104	416	SILICA	108	45000	0.0350	0.0162		46%	50%	0%	90%	0.35	0.76	0.16	0.07
26		F	8	#2 INCLINE BELT	#3 INCLINE BELT	4	104	416	SILICA	162	67500	0.0350	0.0162		46%	20%	0%	90%	0.21	0.45	0.09	0.04
27						2	17	34	IRON ORE	0	0	0.0350	0.0162		46%	20%	0%	90%	0.00	0.00	0.00	0.00
28		F	9	#3 INCLINE BELT	SCREEN #2	4	104	416	SILICA	162	67500	0.0350	0.0162		46%	20%	0%	90%	0.21	0.45	0.09	0.04
29						2	17	34	IRON ORE	0	0	0.0350	0.0162		46%	20%	0%	90%	0.00	0.00	0.00	0.00
30		F	10	SCREEN #2	CROSS COUNTRY BELT	4	104	416	SILICA	108	45000	0.0350	0.0263		76%	20%	0%	90%	0.23	0.30	0.05	0.05
31						2	17	34	IRON ORE	0	0	0.0350	0.0263		76%	20%	0%	90%	0.00	0.00	0.00	0.00
32		F	11	SCREEN #2	CONE CRUSHER	4	104	416	SILICA	54	22500	0.0350	0.0263		76%	20%	0%	90%	0.11	0.15	0.03	0.02
33						2	0	0	IRON ORE	#DIV/0!	0	0.0350	0.0263		76%	20%	0%	90%	#DIV/0!	#DIV/0!	0.00	0.00
34		F	12	CONE CRUSHER	#4 INCLINE BELT	4	104	416	SILICA	54	22500	0.0350	0.0162		46%	20%	0%	0%	0.70	1.61	0.32	0.15
35						2	0	0	IRON ORE	#DIV/0!	0	0.0350	0.0162		46%	20%	0%	0%	#DIV/0!	#DIV/0!	0.00	0.00
36		F	13	#4 INCLINE BELT	#2 INCLINE BELT	4	104	416	SILICA	54	22500	0.0350	0.0162		46%	20%	0%	0%	0.70	1.61	0.32	0.15
37						2	0	0	IRON ORE	#DIV/0!	0	0.0350	0.0162		46%	20%	0%	0%	#DIV/0!	#DIV/0!	0.00	0.00
38																20%						
39		F	14	#2 INCLINE BELT	SCREEN #1	8	250	2000	LIMESTONE	250	500000	0.0350	0.0162		46%	20%	0%	90%	0.32	0.70	0.70	0.32
40						3	35	105	GYPSUM	300	31500	0.0350	0.0162		46%	20%	0%	90%	0.39	0.84	0.04	0.02
41						2	10	20	IRON ORE	200	4000	0.0350	0.0162		46%	20%	0%	90%	0.26	0.56	0.01	0.00
42		F	15	SCREEN #1	CROSS COUNTRY BELT	8	250	2000	LIMESTONE	200	400000	0.0350	0.0263		76%	20%	0%	90%	0.42	0.56	0.56	0.42
43						3	35	105	GYPSUM	200	21000	0.0350	0.0263		76%	20%	0%	90%	0.42	0.56	0.03	0.02
44						2	10	20	IRON ORE	200	4000	0.0350	0.0263		76%	20%	0%	90%	0.42	0.56	0.01	0.00
45		F	16	SCREEN #1	HAMMER MILL	8	250	2000	LIMESTONE	50	100000	0.0350	0.0263		76%	20%	0%	90%	0.11	0.14	0.14	0.11
46						3	35	105	GYPSUM	100	10500	0.0350	0.0263		76%	20%	0%	90%	0.21	0.28	0.01	0.01
47						2	10	20	IRON ORE	0	0	0.0350	0.0263		76%	20%	0%	90%	0.00	0.00	0.00	0.00
48		F	17	HAMMER MILL	#1 INCLINE BELT	8	250	2000	LIMESTONE	50	100000	0.0350	0.0162		46%	50%	0%	90%	0.04	0.09	0.09	0.04
49						3	35	105	GYPSUM	100	10500	0.0350	0.0162		46%	50%	0%	90%	0.08	0.18	0.01	0.00
50						2	10	20	IRON ORE	0	0	0.0350	0.0162		46%	50%	0%	90%	0.00	0.00	0.00	0.00
51																						
52	CONVEYING AND	F	18	CROSS COUNTRY BEL	BELT B	8	250	2000	LIMESTONE	200	400000	0.0350	0.0162		46%	20%	0%	0%	2.58	5.60	5.60	2.58
53	SILO STORAGE					1	20	20	IRON ORE	200	4000	0.0350	0.0162		46%	20%	0%	0%	2.58	5.60	0.08	0.03
54						4	710	2838	SILICA	14	40000	0.0350	0.0162		46%	20%	0%	0%	0.18	0.39	0.56	0.26
55		F	19	BELT B	BELT C	8	250	2000	LIMESTONE	200	400000	0.0350	0.0162		46%	20%	0%	0%	2.58	5.60	5.60	2.58
56						4	710	2838	SILICA	14	40000	0.0350	0.0162		46%	20%	0%	0%	0.18	0.39	0.56	0.26
57						2	10	20	IRON ORE	200	4000	0.0350	0.0162		46%	20%	0%	0%	2.58	5.60	0.08	0.03
58																						
59		F	20	BELT C	SILOS (3)	8	250	2000	LIMESTONE	200	400000	0.0350	0.0162		46%	20%	0%	90%	0.26	0.56	0.56	0.26
60						4	104	416	SILICA	108	45000	0.0350	0.0162		46%	20%	0%	90%	0.14	0.30	0.06	0.03
61						2	10	20	IRON ORE	200	4000	0.0350	0.0162		46%	20%	0%	90%	0.26	0.56	0.01	0.00
62																						
63		F	21	CROSS COUNTRY BEL	GYPSUM BELT	3	35	105	GYPSUM	200	21000	0.0350	0.0162		46%	20%	0%	0%	2.58	5.60	0.29	0.14
64		F	22	GYPSUM BELT	CHUTE	3	35	105	GYPSUM	200	21000	0.0350	0.0162		46%	20%	0%	0%	2.58	5.60	0.29	0.14
65		F	23	CHUTE	GYPSUM BIN	3	35	105	GYPSUM	200	21000	0.0350	0.0162		46%	20%	0%	0%	2.58	5.60	0.29	0.14
66																						
67	STOCKPILE	F	24	CROSS COUNTRY BEL	CHUTE	8	25	200	LIMESTONE	115	23202	0.0350	0.0162		46%	20%	0%	0%	1.50	3.25	0.32	0.15
68	CRUSHED ROCK					8	13	100	SILICA	50	5000	0.0350	0.0162		46%	20%	0%	0%	0.65	1.40	0.07	0.03
69		F	25	CHUTE	GROUND	8	25	200	LIMESTONE	115	23202	0.0350	0.0162		46%	20%	0%	0%	1.50	3.25	0.32	0.15
70						8	13	100	SILICA	50	5000	0.0350	0.0162		46%	20%	0%	0%	0.65	1.40	0.07	0.03
71																						
72	SILO WITHDRAWAL/	F	28	SILO FEEDER	FEED BELT	24	313	7500	LIMESTONE	27	200000	0.0350	0.0162		46%	0%	0%	90%	0.04	0.09	0.35	0.16
73	CONVEYING AND	F	27	SILO FEEDER	FEED BELT	24	313	7500	LIMESTONE	27	200000	0.0350	0.0162		46%	0%	0%	90%	0.04	0.09	0.35	0.16
74	RAW GRINDING	F	28	SILO FEEDER	FEED BELT	24	313	7500	SILICA	6	45000	0.0350	0.0162		46%	0%	0%	90%	0.01	0.02	0.08	0.04
75		F	29	SILO FEEDER	FEED BELT	24	313	7500	IRON ORE	1	4000	0.0350	0.0162		46%	0%	0%	90%	0.00	0.00	0.01	0.00
76		F	30	FEED BELT	MILL # 4	24	313	7500	LIMESTONE	53	400000	0.0350	0.0162		46%	0%	0%	90%	0.09	0.19	0.70	0.32

TABLE 3

PROPOSED

PROCESS FUGITIVE EMISSIONS FOR ASH GROVE CEMENT

	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	PROCESS		FUG	NAME FROM	NAME TO	HRS	DAYS				ANNUAL	EMISSION	FACTORS	REF	PM10	MOIST.	CAPT.	BUILD.	EMISSIONS		TSP	PM-10
2			CODE			/DAY	/YR	HRS/YR	MATERIAL	THR-PUT	THROUGHPUT	TSP	PM10		FRAC	CONTL	CONTL	CONTL	PM10	TSP	EMISS	EMISS
3										TON/HR	TON/YR	LB/TON	LB/TON		%	FACT.	FACT.	FACT 3	LB/HR	LB/HR	T/YR	T/YR
77						24	313	7500	SILICA	6	45000	0.0350	0.0162		46%	0%	0%	90%	0.01	0.02	0.08	0.04
78						24	313	7500	IRON ORE	1	4000	0.0350	0.0162		46%	0%	0%	90%	0.00	0.00	0.01	0.00
79		F	31	MILL #4	SLURRY TANK	24	313	7500	RAW MEAL	80	449,000	0.0000	0.0000		50%	0%	0%	90%	0.00	0.00	0.00	0.00
80																						
81		F	32	FEED BELT	MILL #3 (BACK-UP)	24	0	0	*LIMESTONE*	*#DIV/0!*	0	*0.0350*	*0.0162*		*46%*	*0%*	*0%*	*90%*	*#DIV/0!*	*#DIV/0!*	*0.00*	*0.00*
82						24	0	0	SILICA	#DIV/0!	0	0.0350	0.0162		46%	0%	0%	90%	#DIV/0!	#DIV/0!	0.00	0.00
83						24	0	0	IRON ORE	#DIV/0!	0	0.0350	0.0162		46%	0%	0%	90%	#DIV/0!	#DIV/0!	0.00	0.00
84		F	33	MILL #3	SLURRY TANK	24	0	0	RAW MEAL	#DIV/0!	0	0.0000	0.0000		50%	0%	0%	90%	#DIV/0!	#DIV/0!	0.00	0.00
85																						
86	COAL HANDLING	F	34	DUMP	HOPPER	24	10	250	COAL	280	70000	0.0050	0.0013	cs	25%	0%	0%	0%	0.35	1.40	0.18	0.04
87		F	35	HOPPER	BELT	24	10	250	COAL	280	70000	0.0050	0.0013	ent	25%	0%	0%	0%	0.35	1.40	0.18	0.04
88		F	36	BELT	COAL ELEVATOR	24	10	250	COAL	280	70000	0.0050	0.0013	pm10	25%	0%	0%	0%	0.35	1.40	0.18	0.04
89		F	37	COAL ELEVATOR	COAL SILO	24	10	250	COAL	280	70000	0.0050	0.0013		25%	0%	0%	0%	0.35	1.40	0.18	0.04
90		F	38	COAL SILO	BELT	24	352	8440	COAL	4	35000	0.0050	0.0013		25%	0%	0%	90%	0.00	0.00	0.01	0.00
91		F	39	BELT	#1 COAL MILL	24	352	8440	COAL	4	35000	0.0050	0.0013		25%	0%	0%	90%	0.00	0.00	0.01	0.00
92		F	40	COAL SILO	BELT	24	274	6589	COAL	5	35000	0.0050	0.0013		25%	0%	0%	90%	0.00	0.00	0.01	0.00
93		F	41	BELT	#2 COAL MILL	24	274	6589	COAL	5	35000	0.0050	0.0013		25%	0%	0%	90%	0.00	0.00	0.01	0.00
94																						
95	KILN SYSTEM	F	42	SLURRY	#1 KILN	24	352	8448	RAW MEAL	23	198000	0.0000	0.0000		50%	0%	0%	99%	0.00	0.00	0.00	0.00
96	NO. 1	F	43	#1 KILN	COOLER	24	352	8448	CLINKER	13	110000	0.1500	0.0300		20%	0%	0%	90%	0.04	0.20	0.83	0.17
97		F	44	COOLER	DRAG #1	24	352	8448	CLINKER	13	110000	0.1500	0.0300		20%	0%	0%	90%	0.04	0.20	0.83	0.17
98		F	45	DRAG #1	DRAG #3	24	352	8448	CLINKER	13	110000	0.1500	0.0300		20%	0%	95%	90%	0.00	0.01	0.04	0.01
99																						
100	KILN SYSTEM	F	46	SLURRY	#2 KILN	24	335	8049	RAW MEAL	31	252000	0.0000	0.0000		20%	0%	0%	99%	0.00	0.00	0.00	0.00
101	NO. 2	F	47	#2 KILN	#2 COOLER	24	335	8049	CLINKER	17	140000	0.1500	0.0300		20%	0%	95%	90%	0.00	0.01	0.05	0.01
102		F	48	#2 COOLER	DRAG #2	24	335	8049	CLINKER	17	140000	0.1500	0.0300		20%	0%	95%	90%	0.00	0.01	0.05	0.01
103		F	49	DRAG #2	DRAG #3	24	335	8049	CLINKER	17	140000	0.1500	0.0300		20%	0%	95%	90%	0.00	0.01	0.05	0.01
104		F	49A	DRAG #2	AUX. DRAG	24	335	8049	CLINKER	0	0	0.1500	0.0300		20%	0%	95%	90%	0.00	0.00	0.00	0.00
105		F	49B	AUX DRAG	TRACK BIN	24	335	8049	CLINKER	0	0	0.1500	0.0300		20%	0%	95%	10%	0.00	0.00	0.00	0.00
106		F	49C	TRACK BIN	CRANE	24	335	8049	CLINKER	0	0	0.1500	0.0300		20%	0%	0%	50%	0.00	0.00	0.00	0.00
107	SUBTOTAL																					
108																						
109	clinker recieving		49d	rail car	track bin	24	335	8049	CLINKER	250	80000	0.1500	0.0750		50%	0%	0%	20%	15.00	30.00	4.90	2.40
110																						
111	CLINKER	F	50	DRAG #3	CLINKER ELEVATOR #1	24	365	8760	CLINKER	57	497203	0.1500	0.0750		50%	0%	95%	20%	0.17	0.34	1.49	0.75
112	HANDLING	F	51	CLINKER ELEVATOR #	plenum box	24	365	8760	CLINKER	17	149161	0.1500	0.0750		50%	0%	95%	20%	0.06	0.10	0.45	0.22
113		F	52	plenum box	BIN	24	365	8760	CLINKER	17	149161	0.5000	0.2500		50%	0%	95%	20%	0.17	0.34	1.49	0.75
114		F	53	BIN	CRANE	24	365	8760	CLINKER	26	229161	0.5000	0.2500		50%	0%	0%	20%	5.23	10.46	45.83	22.92
115		F	54	CRANE	CRANEWAY STORAGE	24	365	8760	CLINKER	26	229161	0.5000	0.2500		50%	0%	0%	20%	5.23	10.46	45.83	22.92
116																						
117		F	55	CLINKER ELEVATOR #	DRAG #4	24	365	8760	CLINKER	40	348042	0.1500	0.0750		50%	0%	95%	0%	0.15	0.30	1.31	0.65
118		F	56	DRAG #4	ELEVATOR #2	24	365	8760	CLINKER	40	348042	0.1500	0.0750		50%	0%	95%	0%	0.15	0.30	1.31	0.65
119		F	57	ELEVATOR #2	DRAG #5	24	365	8760	CLINKER	9	74580	0.1500	0.0750		50%	0%	95%	90%	0.00	0.01	0.03	0.01
120		F	58	DRAG #5	CLINKER SILO #1	24	365	8760	CLINKER	3	29089	0.1500	0.0750		50%	0%	95%	90%	0.00	0.00	0.01	0.01
121		F	59	DRAG #5	CLINKER SILO #2	24	365	8760	CLINKER	3	29086	0.1500	0.0750		50%	0%	95%	90%	0.00	0.00	0.01	0.01
122		F	60	DRAG #5	CLINKER SILO #3	24	365	8760	CLINKER	2	18408	0.1500	0.0750		50%	0%	95%	90%	0.00	0.00	0.01	0.00
123																						
124		F	61	ELEVATOR #2	STACKER BELT #1	24	365	8760	CLINKER	31	273462	0.1500	0.0750		50%	0%	95%	0%	0.12	0.23	1.03	0.51
125		F	62	STACKER BELT #1	STACKER BELT #2	24	365	8760	CLINKER	31	273462	0.1500	0.0750		50%	0%	95%	0%	0.12	0.23	1.03	0.51
126		F	63	STACKER BELT #2	STACKER	24	365	8760	CLINKER	31	273462	0.1500	0.0750		50%	0%	95%	0%	0.12	0.23	1.03	0.51
127		F	64	STACKER	PILE (OPEN AREA)	24	365	8760	CLINKER	31	273462	0.5000	0.2500		50%	0%	95%	50%	0.20	0.39	1.71	0.85
128																						
129		F	65A	STORAGE	CRANE	24	365	8500	CLINKER	26	229161	0.5000	0.2500		50%	0%	0%	50%	3.27	6.54	28.66	14.32
130	CLINKER	F	65	CRANE	BIN #1	24	365	8760	CLINKER	9	76425	0.5000	0.2500		50%	0%	0%	50%	1.09	2.18	9.55	4.78
131	RECLAIM	F	66	CRANE	BIN #2	24	365	8760	CLINKER	9	76427	0.5000	0.2500		50%	0%	0%	50%	1.09	2.18	9.55	4.78
132		F	67	CRANE	BIN #3	24	365	8760	CLINKER	9	76308	0.5000	0.2500		50%	0%	0%	50%	1.09	2.18	9.54	4.77
133																						
134		F	68	GALLERY PILE	RECLAIM BELT #1	24	365	8760	CLINKER	8	66385	0.1500	0.0750		50%	0%	95%	90%	0.00	0.01	0.03	0.01
135		F	69	GALLERY PILE	RECLAIM BELT #1	24	365	8760	CLINKER	8	66385	0.1500	0.0750		50%	0%	95%	90%	0.00	0.01	0.03	0.01
136		F	70	GALLERY PILE	RECLAIM BELT #2	24	365	8760	CLINKER	8	66385	0.1500	0.0750		50%	0%	95%	90%	0.00	0.01	0.03	0.01
137		F	71	GALLERY PILE	RECLAIM BELT #2	24	365	8760	CLINKER	8	66385	0.1500	0.0750		50%	0%	95%	90%	0.00	0.01	0.03	0.01
138																						
139		F	72	RECLAIM BELT #1	RECLAIM BELT #2	24	365	8760	CLINKER	16	136731	0.1500	0.0750		50%	0%	95%	90%	0.01	0.01	0.05	0.03
140																						
141		F	73	RECLAIM BELT #2	RECLAIM BELT #3	24	365	8760	CLINKER	16	136731	0.1500	0.0750		50%	0%	95%	90%	0.01	0.01	0.05	0.03
142																						
143		F	74	CLINKER SILO #1	RECLAIM BELT #3	24	365	8760	CLINKER	3	24880	0.1500	0.0750		50%	0%	95%	90%	0.00	0.00	0.01	0.00
144		F	75	CLINKER SILO #2	RECLAIM BELT #3	24	365	8760	CLINKER	3	24880	0.1500	0.0750		50%	0%	95%	90%	0.00	0.00	0.01	0.00
145		F	76	CLINKER SILO #3	RECLAIM BELT #3	24	365	8760	CLINKER	3	24880	0.1500	0.0750		50%	0%	95%	90%	0.00	0.00	0.01	0.00
146																						
147		F	77	RECLAIM BELT #3	ELEVATOR #3	24	365	8760	CLINKER	40	348042	0.1500	0.0750		50%	0%	95%	0%	0.15	0.30	1.31	0.65
148																						
149		F	78	ELEVATOR #3	CLINKER BIN DRAG	24	365	8760	CLINKER	40	348042	0.1500	0.0750		50%	0%	95%	0%	0.15	0.30	1.31	0.65
150		F	79	CLINKER BIN DRAG	BIN #1	24	365	8760	CLINKER	13	116072	0.5000	0.2500		50%	0%	95%	0%	0.17	0.33	1.45	0.73

TABLE 3

PROPOSED

PROCESS FUGITIVE EMISSIONS FOR ASH GROVE CEMENT

	A	B	C	D	E	F	G	H	I	X	L	M	N	O	P	Q	R	S	T	U	V	W
1	PROCESS		FUG	NAME FROM	NAME TO	HRS	DAYS				ANNUAL	EMISSION	FACTORS	REF	PM10	MOIST.	CAPT.	BUILD.	EMISSIONS		TSP	PM-10
2			CODE			/DAY	/YR	HRS/YR	MATERIAL	THR-PUT	THROUGHPUT	TSP	PM10		FRAC	CONTL.	CONTL.	CONTL.	PM10	TSP	EMISS	EMISS
3										TON/HR	TON/YR	LB/TON	LB/TON		%	FACT.	FACT.	FACT 3	LB/HR	LB/HR	T/YR	T/YR
151		F	80	CLINKER BIN DRAG	BIN #2	24	365	8760	CLINKER	13	119078	0.5000	0.2500		50%	0%	95%	0%	0.17	0.33	1.46	0.73
152		F	81	CLINKER BIN DRAG	BIN #3	24	365	8760	CLINKER	13	116895	0.5000	0.2500		50%	0%	95%	0%	0.17	0.33	1.46	0.72
153																						
154	KILN NO. 1	F	82	MULTICLONE	SCREW	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
155	DUST HANDLING	F	83	SCREW	ELEVATOR	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
156	DUST UPSET	F	84	ELEVATOR	SCREW	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
157		F	85	SCREW	BIN	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	0%	85%	0.04	0.08	0.01	0.00
158		F	109	BIN	LOADER	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	0%	0%	0.27	0.54	0.03	0.02
159																						
160	KILN NO. 1 ESP	F	92	ESP	SCREW	24	188	4500	CKD	1	2250	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
161	DUST HANDLING	F	87	SCREW	BUNKER	24	188	4500	CKD	1	2250	0.2700	0.1350		50%	0%	0%	0%	0.07	0.14	0.30	0.15
162	DUST UPSET	F	88	BUNKER	LOADER	24	188	4500	CKD	1	2250	0.2700	0.1350		50%	0%	0%	0%	0.07	0.14	0.30	0.15
163																						
164	MULTICLONE DUST	F	82	MULTICLONE	SCREW	24	347	8323	CKD	3	21120	0.2700	0.1350		50%	0%	99%	0%	0.00	0.01	0.03	0.01
165	RETURN	F	83	SCREW	ELEVATOR	24	347	8323	CKD	3	21120	0.2700	0.1350		50%	0%	99%	0%	0.00	0.01	0.03	0.01
166		F	84	ELEVATOR	SCREW	24	347	8323	CKD	3	21120	0.2700	0.1350		50%	0%	99%	90%	0.00	0.00	0.00	0.00
167		F	106	SCREW	PADDLE MIXER	24	347	8323	CKD	3	21120	0.2700	0.1350		50%	0%	90%	90%	0.01	0.01	0.06	0.03
168																						
169	ESP DUST	F	92	PRECIPITATOR	SCREW	24	165	3948	CKD	1	5227	0.2700	0.1350		50%	0%	99%	90%	0.00	0.00	0.00	0.00
170	RETURNED	F	93	SCREW	ELEVATOR	24	165	3948	CKD	1	5227	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
171		F	94	ELEVATOR	SCREW	24	165	3948	CKD	1	5227	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
172		F	95	SCREW	LEACH TANK	24	165	3948	CKD	1	5227	0.2700	0.1350		50%	0%	0%	85%	0.03	0.05	0.11	0.05
173																						
174	KILN NO. 2	F	96	MULTICLONE	SCREW	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
175	DUST HANDLING	F	97	SCREW	BIN	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
176	DUST UPSET	F	98	BIN	LOADER	24	5	125	CKD	2	250	0.2700	0.1350		50%	0%	0%	0%	0.27	0.54	0.03	0.02
177																						
178	KILN NO. 2 ESP	F	101	ESP	SCREW	24	188	4500	CKD	1	2250	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
179	DUST HANDLING	F	106	SCREW	BUNKER	24	188	4500	CKD	1	2250	0.2700	0.1350		50%	0%	0%	0%	0.07	0.14	0.30	0.15
180	DUST UPSET	F	107	BUNKER	LOADER	24	188	4500	CKD	1	2250	0.2700	0.1350		50%	0%	0%	0%	0.07	0.14	0.30	0.15
181																						
182	MULTICLONE DUST	F	98	MULTICLONE	SCREW	24	330	7924	CKD	2	17920	0.2700	0.1350		50%	0%	99%	0%	0.00	0.01	0.02	0.01
183	RETURN	F	99	SCREW	ELEVATOR	24	330	7924	CKD	2	17920	0.2700	0.1350		50%	0%	99%	0%	0.00	0.01	0.02	0.01
184		F	100	ELEVATOR	PADDLE MIXER	24	330	7924	CKD	2	17920	0.2700	0.1350		50%	0%	90%	90%	0.00	0.01	0.02	0.01
185																						
186	ESP DUST	F	101	PRECIPITATOR	SCREW	24	148	3549	CKD	1	4435	0.2700	0.1350		50%	0%	99%	90%	0.00	0.00	0.00	0.00
187		F	102	SCREW	SCREW	24	148	3549	CKD	1	4435	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
188		F	103	SCREW	ELEVATOR	24	148	3549	CKD	1	4435	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
189		F	104	ELEVATOR	SCREW	24	148	3549	CKD	1	4435	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
190		F	105	SCREW	LEACH TANK	24	148	3549	CKD	1	4435	0.2700	0.1350		50%	0%	99%	95%	0.00	0.00	0.00	0.00
191																						
192	FINISH GRINDING	F	110	CLINKER BIN #1	CLINKER FEEDER	24	283	6800	CLINKER	24	195564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
193	MILL # 1	F	111	CLINKER FEEDER	BELT	24	283	6800	CLINKER	24	195564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
194		F	112	GYPSUM BIN	CRANE	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	0%	90%	0.00	0.00	0.02	0.00
195		F	112A	CRANE	GYPSUM FEEDER	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	0%	90%	0.00	0.00	0.02	0.00
196		F	113	GYPSUM FEEDER	BELT	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
197		F	114	BELT	MILL #1	24	283	6800	CLINKER	24	185564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
198						24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
199						24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%	99%	90%	0.01	0.01	0.06	0.02
200																						
201	MILL #2	F	115	CLINKER BIN #2	CLINKER FEEDER	24	283	6800	CLINKER	24	185564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
202		F	116	CLINKER FEEDER	BELT	24	283	6800	CLINKER	24	185564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
203		F	117	GYPSUM BIN	CRANE	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	0%	90%	0.00	0.00	0.02	0.00
204		F	117A	CRANE	GYPSUM FEEDER	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	0%	90%	0.00	0.00	0.02	0.00
205		F	118	GYPSUM FEEDER	BELT	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
206		F	119	BELT	MILL #2	24	283	6800	CLINKER	24	185564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
207						24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
208						24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%	99%	90%	0.01	0.01	0.06	0.02
209																						
210		F	120	MILL #1	CEMENT ELEVATOR #1	24	283	6800	CEMENT	77	525600	0.2700	0.1350		50%	0%	99%	90%	0.01	0.02	0.07	0.04
211		F	121	MILL #2	CEMENT ELEVATOR #1	24	283	6800	CEMENT	77	525600	0.2700	0.1350		50%	0%	99%	90%	0.01	0.02	0.07	0.04
212		F	122	CEMENT ELEVATOR #	AIRSLIDE	24	283	6800	CEMENT	155	1051200	0.2700	0.1350		50%	0%	99%	90%	0.02	0.04	0.14	0.07
213		F	123	AIRSLIDE	SEPARATOR	24	283	6800	CEMENT	155	1051200	0.2700	0.1350		60%	0%	99%	90%	0.02	0.04	0.14	0.07
214		F	124	SEPARATOR	RETURN SCREW	24	283	6800	CEMENT	103	700800	0.2700	0.1350		60%	0%	99%	90%	0.01	0.03	0.09	0.05
215		F	125	RETURN SCREW	MILL #1	24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%	99%	90%	0.01	0.01	0.06	0.02
216		F	126	RETURN SCREW	MILL #2	24	283	6800	CEMENT	52	350400	0.2700	0.1350		60%	0%	99%	90%	0.01	0.01	0.06	0.02
217																			0.00	0.00		
218		F	127	SEPARATOR	AIRSLIDE	24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%		99%	0.07	0.14	0.47	0.24
219		F	128	AIRSLIDE	COOLER	24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%		99%	0.07	0.14	0.47	0.24
220		F	129	COOLER	FK PUMP	24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%		99%	0.07	0.14	0.47	0.24
221																						
222	MILL #3	F	130	CLINKER BIN #3	CLINKER FEEDER	24	283	6800	CLINKER	24	185564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
223		F	131	CLINKER FEEDER	BELT	24	283	6800	CLINKER	24	185564	0.1600	0.0300		20%	0%	95%	90%	0.00	0.02	0.06	0.01
224		F	132	ROCK BIN	ROCK FEEDER	24	283	6800	ROCK	0	0	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00

TABLE 3

PROPOSED

PROCESS FUGITIVE EMISSIONS FOR ASH GROVE CEMENT

	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	PROCESS		FUG	NAME FROM	NAME TO	HRS	DAYS				ANNUAL	EMISSION	FACTORS	REF	PM10	MOIST.	CAPT.	BUILD.	EMISSIONS		TSP	PM-10
2			CODE			/DAY	/YR	HRS/YR	MATERIAL	THR-PUT	THROUGHPUT	TSP	PM10		FRAC	CONTL	CONTL	CONTL	PM10	TSP	EMISS	EMISS
3										TON/HR	TON/YR	LB/TON	LB/TON		%	FACT.	FACT.	FACT 3	LB/HR	LB/HR	T/YR	T/YR
225		F	133	ROCK FEEDER	BELT	24	283	6800	ROCK	0	0	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
226		F	134	GYPSUM BIN	CRANE	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	0%	90%	0.00	0.00	0.02	0.00
227		F	134A	CRANE	GYPSUM FEEDER	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	0%	90%	0.00	0.00	0.02	0.00
228		F	135	GYPSUM FEEDER	BELT	24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
229		F	136	BELT	MILL #3	24	283	6800	CLINKER	24	165884	0.1500	0.0300		20%	0%	95%	90%	0.00	0.02	0.08	0.01
230						24	283	6800	ROCK	0	0	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
231						24	283	6800	GYPSUM	1	9838	0.0350	0.0014		4%	0%	95%	90%	0.00	0.00	0.00	0.00
232						24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%	95%	90%	0.03	0.07	0.24	0.12
233																						
234		F	137	MILL #3	CEMENT ELEVATOR #2	24	283	6800	CEMENT	77	525600	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.35	0.18
235						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
236		F	138	CEMENT ELEVATOR #	AIRSLIDE	24	283	6800	CEMENT	77	525600	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.35	0.18
237						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
238		F	139	AIRSLIDE	SEPARATOR #2	24	283	6800	CEMENT	77	525600	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.35	0.18
239						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
240		F	140	SEPARATOR #2	RETURN SCREW	24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%	95%	90%	0.03	0.07	0.24	0.12
241						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
242		F	141	RETURN SCREW	MILL #3	24	283	6800	CEMENT	52	350400	0.2700	0.1350		50%	0%	95%	90%	0.03	0.07	0.24	0.12
243						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
244																						
245		F	142	SEPARATOR #2	AIRSLIDE	24	283	6800	CEMENT	26	176200	0.2700	0.1350		50%	0%	95%	90%	0.02	0.03	0.12	0.06
246						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
247		F	143	AIRSLIDE	COOLER	24	283	6800	CEMENT	26	176200	0.2700	0.1350		50%	0%	95%	90%	0.02	0.03	0.12	0.06
248						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
249		F	144	COOLER	FK PUMP	24	283	6800	CEMENT	26	176200	0.2700	0.1350		50%	0%	95%	90%	0.02	0.03	0.12	0.06
250						24	283	6800	Masonry	0	0	0.2700	0.1350		50%	0%	95%	90%	0.00	0.00	0.00	0.00
251																						
252	FINISH SILOS	F	145	FK PUMP (MILL#1,#2)	SILO #1	24	15	375	CEMENT	0	0	0.2700	0.1350		50%	0%	99%	0%	0.00	0.00	0.00	0.00
253	FROM MILL #1,#2	F	146	FK PUMP (MILL#1,#2)	SILO #2	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
254		F	147	FK PUMP (MILL#1,#2)	SILO #3	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
255		F	148	FK PUMP (MILL#1,#2)	SILO #4	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
256		F	149	FK PUMP (MILL#1,#2)	SILO #5	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
257		F	150	FK PUMP (MILL#1,#2)	SILO #6	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
258		F	151	FK PUMP (MILL#1,#2)	SILO #7	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
259		F	152	FK PUMP (MILL#1,#2)	SILO #8	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
260		F	153	FK PUMP (MILL#1,#2)	SILO #9	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
261		F	154	FK PUMP (MILL#1,#2)	SILO #10	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
262		F	155	FK PUMP (MILL#1,#2)	SILO #11	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
263		F	156	FK PUMP (MILL#1,#2)	SILO #12	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
264		F	157	FK PUMP (MILL#1,#2)	SILO #13	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
265		F	158	FK PUMP (MILL#1,#2)	SILO #14	24	15	375	CEMENT	39	14737	0.2700	0.1350		50%	0%	99%	0%	0.05	0.11	0.02	0.01
266																						
267	FINISH SILOS	F	159	FK PUMP (MILL #3)	SILO #1	24	15	348	Masonry	3	876	0.2700	0.1350		50%	0%	99%	0%	0.00	0.01	0.00	0.00
268	FROM MILL #3	F	160	FK PUMP (MILL #3)	SILO #2	24	15	348	CEMENT	18	6378	0.2700	0.1350		50%	0%	99%	0%	0.02	0.05	0.01	0.00
269		F	161	FK PUMP (MILL #3)	SILO #3	24	15	348	CEMENT	18	6378	0.2700	0.1350		50%	0%	99%	0%	0.02	0.05	0.01	0.00
270		F	162	FK PUMP (MILL #3)	SILO #4	24	15	348	CEMENT	18	6378	0.2700	0.1350		50%	0%	99%	0%	0.02	0.05	0.01	0.00
271		F	163	FK PUMP (MILL #3)	SILO #5	24	15	348	CEMENT	18	6378	0.2700	0.1350		50%	0%	99%	0%	0.02	0.05	0.01	0.00
272		F	164	FK PUMP (MILL #3)	SILO #6	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
273		F	165	FK PUMP (MILL #3)	SILO #7	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
274		F	166	FK PUMP (MILL #3)	SILO #8	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
275		F	167	FK PUMP (MILL #3)	SILO #9	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
276		F	168	FK PUMP (MILL #3)	SILO #10	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
277		F	169	FK PUMP (MILL #3)	SILO #11	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
278		F	170	FK PUMP (MILL #3)	SILO #12	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
279		F	171	FK PUMP (MILL #3)	SILO #13	24	15	348	CEMENT	18	6378	0.2700	0.1350		50%	0%	99%	0%	0.02	0.05	0.01	0.00
280		F	172	FK PUMP (MILL #3)	SILO #14	24	15	348	CEMENT	5	1688	0.2700	0.1350		50%	0%	99%	0%	0.01	0.01	0.00	0.00
281																						
282	CEMENT bottom	F	173	SILO #1	SCREW #1	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
283	system	F	174	SILO #2	SCREW #1	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
284		F	175	SILO #3	SCREW #1	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
285		F	176	SILO #4	SCREW	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
286		F	177	SILO #5	SCREW	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
287		F	178	SCREW	SCREW #1	24	37	881	CEMENT	76	66071	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.04	0.02
288		F	179	SCREW #1	ELEVATOR # 1	24	37	881	CEMENT	76	66071	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.04	0.02
289																						
290		F	180	SILO #6	SCREW #2	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
291		F	181	SILO #7	SCREW #2	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
292		F	182	SILO #8	SCREW #2	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
293		F	183	SCREW #2	SCREW #4	24	22	529	CEMENT	76	39643	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.03	0.01
294		F	184	SILO #12	SCREW #3	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
295		F	185	SILO #13	SCREW #3	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
296		F	186	SILO #14	SCREW #3	24	7	176	CEMENT	76	13214	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.01	0.00
297		F	187	SCREW #3	SCREW #4	24	22	529	CEMENT	76	39643	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.03	0.01
298		F	188	SCREW #4	ELEVATOR #1	24	44	1057	CEMENT	76	79286	0.2700	0.1350		50%	0%	95%	90%	0.05	0.10	0.05	0.03

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TABLE 3

PROPOSED

PROCESS FUGITIVE EMISSIONS FOR ASH GROVE CEMENT

	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	PROCESS		FUG	NAME FROM	NAME TO	HRS	DAYS				ANNUAL	EMISSION	FACTORS	REF	PM10	MOIST.	CAPT.	BUILD.	EMISSIONS		TSP	PM-10
2			CODE			/DAY	/YR	HRS/YR	MATERIAL	THR-PUT	THROUGHPUT	TSP	PM10		FRAC	CONTL.	CONTL.	CONTL.	PM10	TSP	EMISS	EMISS
3										TON/HR	TON/YR	LB/TON	LB/TON		%	FACT.	FACT.	FACT 3	LB/HR	LB/HR	T/YR	T/YR
299																						
300		F	189	SILO #9	SCREW #8	24	7	176	CEMENT	75	13214	0.2700	0.1350		50%	0%	95%	90%	0.06	0.10	0.01	0.00
301		F	190	SILO #10	SCREW #8	24	7	176	CEMENT	75	13214	0.2700	0.1350		50%	0%	95%	90%	0.06	0.10	0.01	0.00
302		F	191	SILO #11	SCREW #8	24	7	176	CEMENT	75	13214	0.2700	0.1350		50%	0%	95%	90%	0.06	0.10	0.01	0.00
303		F	192	SCREW #8	SCREW #5	24	22	529	CEMENT	75	39643	0.2700	0.1350		50%	0%	95%	90%	0.06	0.10	0.03	0.01
304		F	193	SCREW #5	ELEVATOR #1	24	22	529	CEMENT	75	39643	0.2700	0.1350		50%	0%	95%	90%	0.06	0.10	0.03	0.01
305																						
306		F	194	ELEVATOR #1	DISCHARGE SCREW	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	90%	0.15	0.30	0.12	0.06
307		F	195	DISCHARGE SCREW	RAIL LOADOUT	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	0%	#DIV/0!	#DIV/0!	0.00	0.00
308																						
309	BY TRUCK	F	196	DISCHARGE SCREW	TRANSFER SCREW	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	99%	0.02	0.03	0.01	0.01
310		F	197	TRANSFER SCREW	SCREW	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	99%	0.02	0.03	0.01	0.01
311		F	198	SCREW	TANK A	24	34	822	CEMENT	225	61667	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.06	0.03
312		F	199	SCREW	TANK B	24	34	822	CEMENT	225	61667	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.06	0.03
313		F	200	SCREW	TANK C	24	34	822	CEMENT	225	61667	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.06	0.03
314		F	201	TANK A	TRUCK LOADOUT	24	89	1644	CEMENT	225	123333	0.2700	0.1350		50%	0%	95%	0%	1.52	3.04	0.83	0.42
315		F	202	TANK B	TRUCK LOADOUT	24	89	1644	CEMENT	225	123333	0.2700	0.1350		50%	0%	95%	0%	1.52	3.04	0.83	0.42
316		F	203	TANK C	TRUCK LOADOUT	24	89	1644	CEMENT	225	123333	0.2700	0.1350		50%	0%	95%	0%	1.52	3.04	0.83	0.42
317																						
318	cement back	F	204	silos 9-14	AIRSLIDE	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	99%	0.02	0.03	0.01	0.01
319	system	F	205	AIRSLIDE	ELEVATOR #4	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	99%	0.02	0.03	0.01	0.01
320		F	206	SCREW #8	AIRSLIDE	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	99%	0.02	0.03	0.01	0.01
321		F	207	AIRSLIDE	ELEVATOR #4	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	99%	0.02	0.03	0.01	0.01
322		F	208	ELEVATOR #4	ELEVATOR #5	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.19	0.09
323		F	209	ELEVATOR #5	AIRSLIDE	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.19	0.09
324		F	210	AIRSLIDE	SCREW	24	103	2467	CEMENT	225	185000	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.19	0.09
325		F	211	SCREW	TANK A	24	34	822	CEMENT	225	61667	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.06	0.03
326		F	212	SCREW	TANK B	24	34	822	CEMENT	225	61667	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.06	0.03
327		F	213	SCREW	TANK C	24	34	822	CEMENT	225	61667	0.2700	0.1350		50%	0%	95%	85%	0.23	0.46	0.06	0.03
328		F	208a	airslide	rail loadout	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	0%	#DIV/0!	#DIV/0!	0.00	0.00
329																						
330	CEMENT	F	214	SCREW #1	ELEVATOR #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
331	BY PACKAGE	F	215	SCREW #2	ELEVATOR #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
332		F	216	SCREW #4	ELEVATOR #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
333		F	217	SCREW #5	ELEVATOR #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
334		F	218	ELEVATOR #2	NORTH SOUTH SCREW	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
335		F	219	NORTH SOUTH SCRE	BIN #1	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
336		F	220	NORTH SOUTH SCRE	BIN #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
337		F	221	BIN #1	PACKER # 1	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
338		F	222	BIN #2	PACKER # 2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
339		F	223	BIN #1/ PACKER #1	SPILL AIRSLIDE	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
340		F	224	BIN #2/ PACKER #2	SPILL AIRSLIDE	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
341		F	226	SPILL AIRSLIDE	ELEVATOR #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
342		F	226	ELEVATOR #2	NORTH SOUTH SCREW	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
343		F	227	NORTH SOUTH SCRE	BIN #1	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
344		F	228	NORTH SOUTH SCRE	BIN #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
345																						
346		F	229	SILO #6	AIRSLIDE	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
347		F	230	AIRSLIDE	BIN #2	24	0	0	CEMENT	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
348																						
349	MASONARY	F	231	SILO #1	SCREW #1	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
350	BY PACKAGE	F	232	SCREW #1	ELEVATOR #2	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
351		F	233	ELEVATOR # 2	NORTH SOUTH SCREW	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
352		F	234	NORTH SOUTH SCRE	BIN #3	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
353		F	235	BIN #3	PACKER #3	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
354		F	236	BIN #3/PACKER #3	SPILL SCREW	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
355		F	237	SPILL SCREW	ELEVATOR #3	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
356		F	238	ELEVATOR #3	BIN #3	24	0	0	Masonry	#DIV/0!	0	0.2700	0.1350		50%	0%	95%	99%	#DIV/0!	#DIV/0!	0.00	0.00
357																						
358	TOTAL																				243	196.37
359																						
360																						
361																						
362																						
363																						
364	DRILLING, BLASTING, DOZING																		0.00	0.00	34.85	3.37
365	RAW MATERIAL RECEIVING, CRUSHING, & STORAGE																		10.61	23.59	17.75	7.62
366	IRON ORE, RECEIVING, CRUSHING, & STORAGE																		7.14	16.35	0.19	0.07
367	GYPSUM RECEIVING, CRUSHING, & STORAGE																		10.21	22.86	1.20	0.84
368	SILICA RECEIVING, CRUSHING, & STORAGE																		4.62	10.18	2.83	1.18
369	SILO WITHDRAWAL, CONVEYING, & STORAGE																		0.19	0.42	1.57	0.73
370	FINISH GRINDING & ASSOCIATED HANDLING																		1.83	3.19	8.24	2.41
371	CEMENT LOADOUT																		7.91	15.83	4.01	2.00

January 16, 1996

MEMORANDUM

TO: Orville D. Green, Assisitant Administrator
Permits and Enforcement

FROM: Brian R. Monson, Chief
Operating Permits Bureau

SUBJECT: Issuance of Tier II Operating Permit #005-00004 to
Ash Grove Cement Company (Inkom)

PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 (Rules for the Control of Air Pollution in Idaho) for issuing Operating Permits.

PROJECT DESCRIPTION

This project involves the modification of Operating Permit #005-00004. The proposed modifications change material throughputs for the following sections of the Tier II operating permit:

Quarried Raw Matierial Receiving, Crushing, and Storage
Iron Ore Receiving, Crushing, and Storage
Gypsum Receiving, Crushing, and Storage
Raw Material Silo Withdrawal
Clinker Reclaim
Finish Grinding and Associated Handling
Cement Loadout

Ash Grove Cement Company (AGC) has also proposed to change the operating and maintenance requirements for baghouses included in the permit.

SUMMARY OF EVENTS

On July 12, 1995, Almer Casile, Air Quality Engineer, met with Craig Southworth of AGC to review, and modify the emission inventory submitted with AGC's April 4, 1995, Tier II operating permit application. On July 21, 1995, the DEQ received AGC's July 18 written request to modify their Tier II operating permit. On August 7, 1995, DEQ called Barbara Beagles and Craig Southworth to verify that the July 18, 1995, letter did serve as AGC application to modify their Tier II operating permit, and to verify AGC's acceptance of the July 12, 1995, emission inventory. AGC responded on August 11, 1995, with a letter stating the company's conditional acceptance of the July 12, 1995, emission inventory.

On October 4, 1995, DEQ met with AGC to discuss the terms of AGC's conditional approval of the July 12, 1995, emission inventory. DEQ stated it would not accept AGC's conditional approval because it noted inconsistencies within the emission inventory. DEQ and AGC agreed that DEQ would review and modify inconsistencies within the July 12, 1995, emission inventory and incorporate the July 18, 1995, requested modification into the emission inventory. It was also agreed upon that the reviewed emission inventory would be sent to AGC for their approval. On October 16, 1995, the reviewed and modified emission inventory was sent to AGC for approval. On October 30, 1995, DEQ received AGC's approval of the modified emission inventory. A public comment period was then held from December 4, 1995, to January 2, 1996.

On December 18, 1995, DEQ received comments about the content of the technical analysis memo and the proposed operating permit. These comments were addressed in the response package, and the technical analysis memo and incorporated into the proposed permit.

RECOMMENDATION

Based on a review of the submitted information, modified emission inventory, and of applicable state and federal regulations, the Bureau staff recommends that Ash Grove Cement, located in Inkom, Idaho, be issued a modified Tier II Operating Permit. Staff also recommends that the facility be notified in writing of the obligation to pay permit application fees for the Tier II Operating Permit.

ODG\BRM\ABC:jrj...\permit\ashgrove\asqf.imm

cc: A. Cole, SEIRO
Source File
R. Elkins, SEIRO
COF
G. Spinner, SEIRO

RESPONSES TO PUBLIC COMMENTS SUBMITTED DURING THE PUBLIC COMMENT PERIOD AND PUBLIC HEARING EXTENDING FROM DECEMBER 4, 1995, TO JANUARY 5, 1996, ON THE ASH GROVE CEMENT COMPANY (INKOM) PROPOSED PM_{10} SIP (TIER II) OPERATING PERMIT

I. INTRODUCTION

A public comment period on Ash Grove Cement's (AGC) permit application and proposed operating permit was held from December 4, 1995, through January 5, 1996. The application was submitted in order to modify Operating Permit #005-00004. Information was made available to the public at the Pocatello Public Library and the Division of Environmental Quality's (DEQ) field office in Pocatello. Comments and questions were received by DEQ's Central office in Boise, Idaho, in the form of written comments.

Public comments which concern air quality aspects of the facility application and propose permit have been summarized below. Each comment is numbered and followed by DEQ's response. Some comments have been combined and paraphrase in order to eliminate duplication and provide a clearer summary. Responses discuss only the facts necessary to address the comment. An appendix is provided which lists the name of each person who provided the comments.

Only comments, questions, and suggestions specifically pertaining to the proposed permit and the permit application are addressed in this document.

II. COMMENTS AND RESPONSES

Comment #1: Request to change the sentence *The Ash Grove Cement (AGC) plant has an annual production of approximately 220,000 tons of cement* located in the Facility Description section of the Technical Analysis Memorandum of the Public Comment Package to *The Ash Grove Cement (AGC) plant has an annual production of approximately 220,000 tons of* clinker.

DEQ Response: **The requested change has been incorporated into the Technical Analysis Memorandum.**

Comment #2: Request change in Appendix B, Table 3, Page 1, emission point F19 Belt B to Belt C from silica annual throughput of 4000 tons to 40,000 tons annual throughput.

DEQ Response: **The requested change was incorporated into Table 3, emission point F19. Please note, however, that the requested change did cause emissions from that point to change. The change in emissions were incorporated into the emission limit for Silica Receiving, Crushing, and Storage.**

Comment #3: Request change in Silica Receiving, Crushing, and Storage, Section 4.1 Process Rate of the proposed permit from *ninty-six* to *ninety-six.*

DEQ Response: **The requested correction has been incorporated into the proposed permit.**

Comment #4: Request change in Rotary Kilns, Operating Requirements, Section 4.1.1 of the proposed permit from *46 CFR 279* to *40 CFR 279.*

DEQ Response: **DEQ has reviewed the requested correction and has incorporated it into the proposed permit.**

Comment #5: Request change to #1 and #2 Clinker Coller and Clinker Handling System, Section 1.2 of the proposed permit from *Emission associated with all transfer points* to *Emissions.*

DEQ Response: **DEQ has reviewed the requested correction and has incorporated it into the proposed permit.**

Comment #6: Request change to Cement Loadout, Section 1.2 Control Description of the proposed permit from *truck loading tanks A/B and C/D* to *A,B, and C/D.*

DEQ Response: **DEQ has reviewed the requested correction and has incorporated it into the proposed permit.**

Comment #7: Request change in page numbering of Paved Roads section of the proposed permit from *Page 35 of 46* to *Page 42 of 46.*

DEQ Response: **DEQ has reviewed the requested correction and has incorporated it into the proposed permit.**

Comment #8: Request to omit Sections 3 and 5 of the Paved Roads section of the proposed permit because of the inapplicability of the sections with the requirements specified in the proposed permit for Paved Roads.

DEQ Response: **DEQ has reviewed the requested correction and has omitted Sections 3 and 5 of the Paved Roads section of the proposed permit.**

Comment #9: Request to receive documentation from DEQ that the inclusion of the manufacturers and model numbers of all of the process equipment used at the facility does not give the DEQ the right to hold Ash Grove Cement to use the same type of equipement when replacing machinery throughout the lifetime of this permit.

DEQ Response: **Because the allowable emission limits given in the proposed permit are based on the capacities and operating characteristics of the equipment used in this process, as well as the materials used in the process, DEQ cannot grant the request as stated. Changes in equipment at Ash Grove Cement may, or may not, change the emission inventory of the facility as it was submitted at the time of this modification. Any proposed change in the type of equipment, therefore, would require a review by either DEQ, or Ash Grove Cement, that would verify that no change in the emission inventory would occur.**